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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/018,790	10/01/2002	Jean-Pascal Planche	Q67797	1942

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SUGHRUE MION, PLLC  
2100 PENNSYLVANIA AVENUE, N.W.  
WASHINGTON, DC 20037

EXAMINER
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SZEKELY, PETER A

ART UNIT	PAPER NUMBER
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1714

DATE MAILED: 08/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/018,790

Applicant(s)

PLANCHE ET AL.

Examiner

Peter Szekely

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01 October 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 7.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 13 and 24 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. It is not known whether the cited average molecular mass is weight average, number average, viscosity average, peak average or Z average molecular mass. One of ordinary skill in the art, would not know which value to use.
3. Claims 1-13 and 21-24 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a unsaturated polymer being dispersed in bitumen and then crosslinked and/or functionalized, does not reasonably provide enablement for a crosslinked and/or functionalized polymer being dispersed in bitumen. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims. The specification does not support shredded vulcanized tires being dispersed in the blend of oxidized and straight run bitumen.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

5. Claim 1-29 are rejected under 35 U.S.C. 102(a) as being anticipated by Exxon research and Engineering Company EP 0 559 462 or Cosmo Oil Co Ltd. JP-09-95616.

6. Exxon describes bituminous compositions used as a binder for road surfaces, which compositions are different in terms of their viscoelastic properties and their stability in storage and contain neutral mixtures of oxidized bitumen and a polymer functionalized by n acid function. In said document, the term “oxidized bitumen” means any mixture of oxidized bitumen and non-oxidized bitumen (see page 3, line 58, page 4, line1). These compositions are prepared by dissolving the bitumen and the polymer in suitable solvents while stirring, followed by heating the oxidized bitumen to a temperature between 140C and 170C and gradually adding the polymer thereto in situ while stirring. The polymer, which is present in proportions strictly between 0 and 4% by weight, is thus evenly dispersed in the bituminous matrix (see page 4, lines 2-9 and claim 2). In Example 2, 20% by weight oxidized bitumen is mixed with 80% by weight non-oxidized bitumen at 160C and is then added to a functionalized ethylene/propylene/diene terpolymer, whereas in Examples 4 and 5, the 20/80 mixture of bitumens is added to functionalized styrene-butadiene-styrene block polymers at 160C. In Example 3, the non-oxidized bitumen is added to the oxidized

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bitumen/functionalized polymer mixture at 160C (oxidized bitumen/non-oxidized bitumen proportions: see the table on page 7). Cosmo Oil describes a modified bituminous composition for road surfaces, containing:

- (A) 30-70% by weight semi-oxidized bitumen,
- (B) 29-70% by weight direct distillation bitumen,
- (C) 0.5-5% by weight rubber, for example chloroprene,
- (D) 0.5-5% by weight thermoplastic elastomer such as SBS.

Applicants' claims are not novel.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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9. Claims 1-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Exxon Research and Engineering Company EP 0 559 462 or Cosmo Oil Co Ltd JP-9-95616, in view of Gelles et al. 5,189,083 or Kluttz 5,278,207.

10. The primary references have been discussed already. Gelles et al. disclose a blend of oxidized and straight run bitumens in column 3, lines 17-20, functionalized polymers in column 4, lines 12-26, crosslinking in the paragraph overlapping columns 7 and 8, molecular weights in column 7, lines 38-47, concentrations in column 6, lines 14-28 and conditions in the Examples. The revelations of Kluttz are similar. Although the secondary references fail to teach the ratio of oxidized to straight run bitumen, they show that all the process steps claimed by applicants would have been obvious to one having ordinary skill in the art, at the time the invention was made.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Szekely whose telephone number is (703) 308-2460. The examiner can normally be reached on 7:00 a.m.-5:30 p.m. Tuesday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (703) 306-2777. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

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Peter Szekely  
Primary Examiner  
Art Unit 1714

P.S.  
August 12, 2003